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Massachusetts Department of Education

Education Report

February 1998

An Open Letter to All Massachusetts Residents

GOVERNMENT DOCUMENTS COLLECTION

JUL 22 1998

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The Commonwealth of Massachusetts
Office of the Governor

Argeo Paul Cellucci
Governor

Dear Friends,

I am pleased to provide this report on Massachusetts public education, and our progress toward meeting and exceeding our state and National Education Goals.

This school year, we will begin a new phase of implementation of Education Reform. With the Curriculum Frameworks in seven core academic areas now complete, we are preparing for the first administration of the new statewide tests based on the Frameworks this spring. As never before in the history of the Commonwealth, attention will focus on the level of student performance in our schools. For the first time, every student in the state will take a test in grades 4, 8, and 10 with high-stakes results. After an initial transition period, students who do not pass the 10th grade test will not be eligible to receive diplomas, and schools or districts with poor results will be held accountable.

It is imperative that we provide our children with a first-rate education. In my 1998 State of the State Address, I outlined my priorities to strengthen our state's public schools and to prepare our students for college, work, and beyond. Improving our schools continues to be our most important challenge. And my plan will meet that challenge:

- Ninety percent committed to the classroom;
- Unwavering support for our rigorous standards;
- 4,000 more teachers for smaller class sizes;
- Building character into the curriculum.

By the Year 2000, the National Education Goals call:

- for all children to start school ready to learn
- for all students to leave grades 4, 8, and 12 having demonstrated competency over challenging subject matter
- for safe schools
- for the high school graduation rate to exceed 90%
- for our students to lead the world in mathematics and science achievement
- for strong adult literacy
- for strong teacher development programs
- for greater parental involvement and participation in educating their children.

Looking further ahead to the year 2010, when this year's kindergartners graduate from high school, the world will be a very different place. America will have completed its transition into the Information Age, and all media and data will have converged into a single digital network. More than ever, students' ability to read, write, handle data, and use technology will determine their academic and workplace success. The degree to which we prepare our students with these core academic and technology-related skills will influence the Commonwealth's economic strength more than any other factor.

As a Commonwealth, we accept and endorse these goals in our Education Reform Act of 1993. I invite you to read this document to review our progress, and encourage you to do all you can to help our children succeed.

Sincerely,

Argeo Paul Cell

Argeo Paul Cellucci, Governor

The Commissioner's Column

by Robert V. Antonucci, Commissioner of Education

The Massachusetts Education Reform Act of 1993 calls for dramatic changes in public education. Among the major improvements are greater and more equitable funding to schools, accountability for student learning, and statewide standards for students, educators, schools and districts. While there is still much to be done to achieve our goals, substantial progress has been made in schools throughout the Commonwealth.

Since 1993, the Commonwealth has supported school improvement with significant financial increases for education. By the end of this decade, more than $2 billion new state Education Reform dollars will have been provided to Massachusetts public schools. The dramatic increase in spending is largely due to the fact that the state share of the costs is rapidly growing so that, by the year 2000, the state and local shares will be about equal statewide.

Major changes in accountability brought about by the Education Reform Act include: a school council in every school, continuing education for educators, more authority for every principal, better defined roles for school committees, and clear, concise, measurable statewide standards for students and schools. The capstone will be a "high-stakes" test based on the new curriculum standards. Every student will need to pass the new test in order to receive a diploma.

The Board of Education, under the chairmanship of Dr. John Silber, is aggressively moving forward to address a number of critical issues, including increased state support for early childhood education. This year, the top priorities in all schools are the curriculum frameworks and the new statewide test. Higher student achievement is the focus of all of Education Reform, and a strong, concerted effort to teach and learn the frameworks is crucial to prepare students for the new test this spring.

A summary of the Eight National Education Goals, and Massachusetts' efforts to achieve them through Education Reform, follows:

National Goal 1: Ready to Learn

Early childhood education funding has increased from $6.9 million in FY 92 to more than $60 million in FY 98. In its FY 99 budget, the Board of Education requested $234 million more for early childhood education. Chairman John Silber and the Board of Education have made early childhood education funding a top educational priority. Community Partnerships for Children supports community agencies in combining their resources to provide quality, affordable early childhood education for the children of working parents. CPC serves more than 15,000 children in 260 communities. Massachusetts Family Network serves more than 6,750 families with children ages birth to three years by providing educational services, parenting education, and home visits, designed to prepare young children for success in grade school. And we have an ambitious kids-to-kids book recycling program, distributing 60,000 books from children who don't need them to 12,000 elementary students who own too few.

LYNN BOSTON

Principal Maria Montes and Commissioner Antonucci distributing books to children at the Lucy Stone School in Dorchester

National Goal 2: School Completion

Elimination of the general track of education in the high schools, more alternative education programs for at-risk students, and more structured learning time in the academic subjects may be factors in the average statewide dropout rate reduction from 3.7% in 1994 to 3.4% in 1997.

National Goal 3: Student Achievement and Citizenship

State scores of third and tenth graders on the Iowa tests, and student achievement on the NAEP (National Assessment of Educational Progress), show that Massachusetts students are among the top performers by these national comparisons (see page 3).

National Goal 4: Teacher Education and Professional Development

The Commonwealth supports professional development for teachers with aid earmarked at $75 dollars per student to all school districts. Also, the Education Reform Law requires higher expectations for all new and experienced educators. Beginning in February 1998, all new teachers are required to take two certification tests -- a test of skills in communication and literacy, and one measuring knowledge of subject matter. Also, all educators currently employed in Massachusetts public schools need to participate in professional development in order to become recertified by June 1999. Priorities of professional development are the curriculum frameworks and assessment, educational technology, and educational leadership.

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State Summaries

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BOARD OF EDUCATION

The Massachusetts Board of Education oversees the policymaking for public education, grades pre-kindergarten through twelve, and adult basic education. The Board is comprised of nine members, seven of whom are appointed by the Governor. Current members are: Chairman, John Silber; Vice-Chairperson, Patricia Crutchfield; Edwin Delattre; William Irwin, Jr.; James Peyser; Roberta Schaefer; and Abigail Thernstrom. Also on the Board are the elected chair of the statewide Student Advisory Council, Micah Silver, and the Chancellor of the Board of Higher Education, Stanley Koplik. Education Commissioner Robert Antonucci is CEO and Secretary to the Board.

STATEWIDE CURRICULUM FRAMEWORKS

The state curriculum framework in English/language arts was approved by the Board of Education in January 1997, and the history/social science framework was approved in August 1997. These guides complete the set of curriculum frameworks in the academic subjects of math, science and technology, foreign languages, English, history/social science, and the arts, required by the Education Reform Act. There is also a state framework in comprehensive health education. The curriculum frameworks are designed for teachers to use in preparing their lesson plans, and for districts to use in planning local curricula.

STATEWIDE STUDENT TESTING

The new statewide test, the Massachusetts Comprehensive Assessment System (MCAS), will measure student understanding of the learning standards in the curriculum frameworks. The state test will measure student, school and district achievement at grades four, eight and ten in the core subjects of mathematics, science and technology, history and social science, English/language arts, and eventually, foreign languages. Additionally, local school districts may choose to continue administering tests of student achievement at all grade levels. Also, formal and informal student assessments done by classroom teachers every day add to the data available on individual student achievement. To ensure that all students are reading early in their school years, the Board voted in 1996 to administer an annual reading achievement test to all 3rd-graders. The Iowa Test of Basic Skills was administered to 96% of all 3rd-graders in the Commonwealth in 1997, and results indicate that 69% scored in the proficient and above-proficient reading levels. The results also indicate that Massachusetts 3rd-graders scored ten points higher in the proficient-reading level than the national average. While these results are encouraging, there is much work to be done to ensure that students scoring in the pre-reader and basic-reader levels become proficient readers.

GRADUATION STANDARDS

Beginning with the class of 2003, students will need to have passed the state's tenth grade test, in addition to meeting local graduation requirements, in order to receive their high school diplomas. Graduating seniors could receive additional recognition certificates as well -- the Certificate of Occupational Proficiency for outstanding vocational/technical achievement, and a Certificate of Mastery for superior academic achievement. The criteria for the Certificate of Mastery include students' achieving a score of four or better on two or more Advanced Placement tests, passing the International Baccalaureate program, or demonstrating outstanding performance on the SAT II exams. The first Certificates of Mastery are expected to be awarded by June 1998.

NAEP (National Assessment of Educational Progress)	Massachusetts			The Nation		
	% at or above basic	% at or above proficient	% at or above advanced	% at or above basic	% at or above proficient	% at or above advanced
Reading, Grade 4, 1994	69	36	8	59	28	7
Math, Grade 4, 1996	71	24	2	62	20	2
Math, Grade 8, 1996	68	28	5	61	23	4
Science, Grade 8, 1996	69	37	4	60	27	3

- Only 3 states scored higher than Massachusetts in 1994 grade 4 reading, out of 39 states that participated.
- Only 5 states scored higher than Massachusetts in 1996 grade 4 math, out of 43 states that participated.
- Only 9 states scored higher than Massachusetts in 1996 grade 8 math, out of 40 states that participated.
- Only 7 states scored higher than Massachusetts in 1996 grade 8 science, out of 40 states that participated.

▶ CONTINUES P.4

State Summaries ...from p. 3

FOUNDATION BUDGET

Under Education Reform, the foundation budget was established to bring all schools to a foundation level of spending. The level differs among communities depending on local demographic and economic factors, but statewide, the average foundation budget in 1993 was $5500 per student. In FY 94, local districts received $1.4 billion in state aid for education, and spending per student increased 11.1% over FY 93 levels to $5572. In FY 95, the state aid was $1.6 billion, and the per-student cost was $5771. In FY 96, the figure was $1.8 billion, with the per-pupil level at $6040. In FY 97, local districts received $2.0 billion, which resulted in an average per student budget of $6206. In FY 98, the state budget for education is more than $2.8 billion, and the Board of Education has requested more than $3.4 billion in its FY 99 education budget. The Governor and Legislature have fully funded the law for five consecutive years.

CHARTER SCHOOLS

Charter schools are independent public schools operated under a 5-year charter granted by the Board of Education. These new schools must be open to all students, and need to meet the same standards and testing requirements set by the Board of Education. Twenty-four charter schools are now open. In July, the charter school cap was raised. Up to 25 new charters, (twelve additional Commonwealth charters and thirteen Horace Mann charters, which need the approval of the local school committee and the local teachers union), may ultimately be granted. New charters will be awarded by the Board in February, 1998.

TIME AND LEARNING

Under the Education Reform Act, emphasis is on increasing the amount of academic time in schools. Districts have submitted their plans to schedule students to study the core academic subjects for at least 900 hours in elementary schools and 990 hours in secondary schools.

NEW TEACHER TEST/PROFESSIONAL DEVELOPMENT

The Education Reform Law requires higher expectations for all new and experienced educators. Beginning in February 1998, all new teachers are required to take two certification tests -- a test of skills in communication and literacy, and one measuring knowledge of subject matter. All educators currently employed in Massachusetts public schools need to participate in professional development in order to become recertified by June 1999 and every five years thereafter. Three current priorities of professional development are the curriculum frameworks and assessment, educational technology, and educational leadership.

REFORM OF REGULATIONS ON EDUCATION

The Board of Education has continued its effort to ensure that all state education regulations are clear, current and essential. In 1997 the Board updated and streamlined regulations on: Charter Schools, Transitional Bilingual Education, and School Finance and Accountability; amended regulations on certificate revocation and on School Building Assistance rates; and adopted new regulations on dispute resolution under the Parental Notification Law and on under-performing schools and districts. The Board expects to review regulations on Vocational-Technical Education and on Special Education in 1998.

SCHEDULE FOR STATE EDUCATIONAL TESTING (1997 - 2000)

1997 - 1998 School Year

April 6-10 - Iowa Test of Basic Skills
Grade 3 - reading

May 4-22 - Massachusetts Comprehensive Assessment System (MCAS)Tests
Grades 4, 8 & 10
English/language arts, mathematics, science/technology

Question tryout
Grades 4, 8, & 10
History/social science

1998 - 1999 School Year

Spring - Iowa Test of Basic Skills
Grade 3 - reading

Spring - MCAS Tests
Grades 4, 8 & 10 -
English/language arts, history/social science, mathematics, science/technology

Spring - MCAS question tryout
Grade10 - world language

1999 - 2000 School Year

Spring - Iowa Test of Basic Skills
Grade 3 - reading

Spring - MCAS Tests
Grades 4, 8 & 10 - English/language arts, history/social science, mathematics, science/technology; world languages (grade 10)

Implementing The Education Reform Act of 1993

A Chronological List of Major Accomplishments

1993

June
- The Massachusetts Education Reform Act signed into law by Governor William F. Weld
- Educators have six years from June 18, 1993 to become recertified

July
- Department of Education began administering new foundation budget formula for funding schools statewide

September
- The Commission on the Common Core of Learning convenes to begin defining the broad educational goals for all students
- More than two thousand teachers began to participate in early retirement incentive

October
- School councils established in every public school

December
- The Department of Education adopted a state plan for professional development, the first in Massachusetts history

1995

January
- Board of Education accepted the report by the Adult Education Committee on the condition of adult education in Massachusetts
- School districts submitted plans to eliminate their "general track" educational programs

March
- Board of Education approved the Five-Year Master Plan for Education Reform

May
- Study groups of 10,000 teachers reviewed curriculum frameworks drafts

June
- Board of Education adopted the State Plan for Professional Development

July
- Board of Education adopted new regulations and evaluation standards, "Principles of Effective Teaching and Administration"
- Summer Institutes in math and science education were held in July and August for more than 990 teachers

September
- The first charter schools opened
- Attracting Excellence to Teaching program began distributing payments to qualified teachers to help defray their college student loan debts
- Massachusetts competed for and won status from the U.S. Department of Education as one of six "Ed-Flex" states, advancing Education Reform by giving the MA Commissioner of Education the authority to grant school districts waivers from specified federal rules and regulations

December
- Board of Education accepted and endorsed the curriculum frameworks in mathematics, science/technology, the arts, health, and world languages

1994

January
- The first draft of the Common Core of Learning released for public comment

March
- Curriculum frameworks development committees convened

May
- Ten early childhood Massachusetts Family Network demonstration sites opened
- Community Partnerships for Children grants were funded, serving 3,700 3- and 4-year old children

July
- The Common Core of Learning adopted by the Board of Education

September
- Report on the condition of alternative education for disruptive students released by the Commission on Alternative Education and the MassJobs Council

December
- Recertification regulations adopted by the Board of Education require all educators to be recertified every five years by continuing their professional development in line with school, district and state goals
- The Board of Education approved regulations on Time and Learning
- Massachusetts gets $33.8 million federal grant for school-to-work programs

1996

January
- The Commission on Early Childhood Education released its report, "Children First," a plan for an early education and care system for Massachusetts
- 121 Community Partnerships for Children grants are funded serving 2,900 3- and 4-year old children
- State budget provides $50 per pupil to all school districts to use for professional development of their teaching staff

July
- New 9-member State Board of Education is named

Summer
- 1000 teachers attend Department-sponsored institutes to learn math, science and technology

September
- Board of Education approved the administration of an annual third-grade reading test

October
- Board of Education reviewed English/language arts and history/social sciences curriculum frameworks
- Education Technology Bond Bill passed

November
- Statewide certification test for new teachers approved

CONTINUES P. 6

The Commissioner's Column ... from page 2

National Goal 5: Mathematics and Science

The Massachusetts mathematics and science/technology curriculum frameworks have been in the schools and used by teachers for nearly two years. All professional development programs are based on the math and science frameworks. There are more than 153 school districts engaged in systemic reform of math and science curriculum through PALMS (Partnerships Advancing Learning Mathematics and Science), supported by the National Science Foundation. Nearly 20,000 teachers statewide have participated in PALMS-supported activities to strengthen classroom practices to align local curricula with the state frameworks.

Goal 6: Adult Literacy and Lifelong Learning

In FY 1993, $8,282,782 federal and state dollars supported services for 9,219 adult students in 65 communities. In FY 1998, $26,205,569 federal and state dollars supported programs estimated to serve 18,500 adult students in 111 communities.

Goal 7: Strong, Safe, Drug-Free and Disciplined Schools

More than 50 schools statewide participate in the Massachusetts Teen Dating Violence Program. There are more than 125 state-funded violence prevention programs in the elementary and secondary schools. More than 95% of Massachusetts public schools receive federal money to promote safe and drug-free programs. In 1997, 1500 students were excluded from schools for disciplinary reasons, up from 1000 four years ago, under the 1993 Reform Act giving principals streamlined authority to remove students. Removing these disruptive students allows the other students a safer environment for learning.

Goal 8: Parental Involvement

Under the Massachusetts Education Reform Act of 1993, all public schools formed school councils comprised of teachers, the principal, community members, students at the secondary level, and parents, to advise on school matters. Also, in 1997 the state received a major five-year federal grant to promote parental participation in educating students in math and science.

This is a serious and ongoing effort, and a very exciting and promising time for all 935,000 students in Massachusetts schools. I am pleased to provide you with this update, and look forward to working with you toward achieving our goals.

Robert V. Antonucci

1997

January

- The Board of Education approved the English/language arts curriculum framework
- 56 Community Partnerships for Children grants were funded, serving 1,500 more 3- and 4-year old children

March

- Eight new Mass Family Network demonstration sites were added
- History/social science draft curriculum framework released for public comment
- Board reviewed criteria which could identify under-performing schools

May

- Board amended the Transitional Bilingual Education regulations, and the Board amended regulations on School Finance and Accountability

June

- Board adopted regulations on under-performing schools and districts, and amended the regulations on the section regarding certification revocation

August

- Board approved the history/social science curriculum framework

October

- Board approved amended regulations on charter schools

November

- The Board approved an unprecedented $3.4 billion budget request to fund public education for FY 99

December

- The Board approved the Fitchburg Schools voluntary controlled choice student assignment plan to balance racial enrollments in schools.

1998

January

- The report of the Lawrence fact-finding team was received. Also, the board approved four general levels of performance on the upcoming state tests of student achievement.

For more Information on Education Reform, visit our web page at www.doe.mass.edu or call 781-388-3300 or write to:

Commissioner
Robert V. Antonucci,
Massachusetts Department of Education
350 Main Street,
Malden, MA 02148

A Financial Snapshot

$$ INCREASE IN STATE AID PER PUPIL (FY'93- FY'98)

(districts above state average)

ORANGE	2,889
FLORIDA	2,734
GR. FALL RIVER	2,662
LAWRENCE	2,640
HOLYOKE	2,604
ESSEX COUNTY	2,460
LOWELL	2,349
BROCKTON	2,278
GR. NEW BEDFORD	2,268
LYNN	2,260
BROOKFIELD	2,253
WORCESTER TRADE	2,235
WINCHENDON	2,175
CARVER	2,133
HAWLEMONT	1,954
NORTH BROOKFIELD	1,887
ATHOL ROYALSTON	1,862
SOUTHBRIDGE	1,859
NORTHBRIDGE	1,837
FALL RIVER	1,831
MIDDLEBOROUGH	1,805
CHELSEA	1,781
AYER	1,774
FITCHBURG	1,771
EAST BRIDGEWATER	1,767
ACUSHNET	1,757
HOPEDALE	1,742
BERKLEY	1,734
WALES	1,732
PALMER	1,729
BRIMFIELD	1,710
WORCESTER	1,705
NORTH ADAMS	1,703
HAVERHILL	1,701
NEW BEDFORD	1,699
MOHAWK TRAIL	1,692
CLARKSBURG	1,674
OXFORD	1,664
DOUGLAS	1,650
BELCHERTOWN	1,646
SHUTESBURY	1,632
REVERE	1,627
MONSON	1,622
WHITMAN HANSON	1,605
LEOMINSTER	1,603
WARE	1,588
CONWAY	1,579
WRENTHAM	1,579
GREATER LOWELL	1,560
GREATER LAWRENCE	1,553
WESTFIELD	1,537
WAREHAM	1,494
SPRINGFIELD	1,488
NEW SALEM/WENDELL	1,485
EVERETT	1,474
NORTH MIDDLESEX	1,429
AMHERST	1,427
NE METROPOLITAN	1,427
GARDNER	1,384
CHESTERFIELD/ GOSHEN	1,379
BRIDGEWATER/ RAYNHAM	1,367
PENTUCKET	1,365
SHIRLEY	1,358
DRACUT	1,356
NORTON	1,323
UXBRIDGE	1,313
CLINTON	1,301
DUDLEY/CHARLTON	1,294
HALIFAX	1,279
GRANVILLE	1,276
FRANKLIN	1,247
UPISLAND	1,247
LUDLOW	1,238
GREENFIELD	1,216
BOSTON	1,206
FAIRHAVEN	1,191
LEICESTER	1,190
TYNGSBOROUGH	1,187
CHICOPEE	1,184
SOUTHEASTERN	1,177
PLYMPTON	1,165
ROCKLAND	1,159
WACHUSETT	1,151
QUABBIN	1,150
SO. WORCESTER	1,133
PLYMOUTH	1,123
RALPH C MAHAR	1,120
LAKEVILLE	1,118
HOLLAND	1,110
NORFOLK	1,103
KINGSTON	1,099
TAUNTON	1,097
PETERSHAM	1,085
QUABOAG	1,085
METHUEN	1,074
HULL	1,073
GILL MONTAGUE	1,055
AMESBURY	1,054
PEMBROKE	1,043
GATEWAY	1,035
MINUTEMAN	1,018
ASHBURNHAM/ WESTMINSTER	1,005
NO. BERKSHIRE	1,002
W. SPRINGFIELD	980
MONTACHUSETT	980
MARSHFIELD	976
BILLERICA	974
ATTLEBORO	960
State Average	946

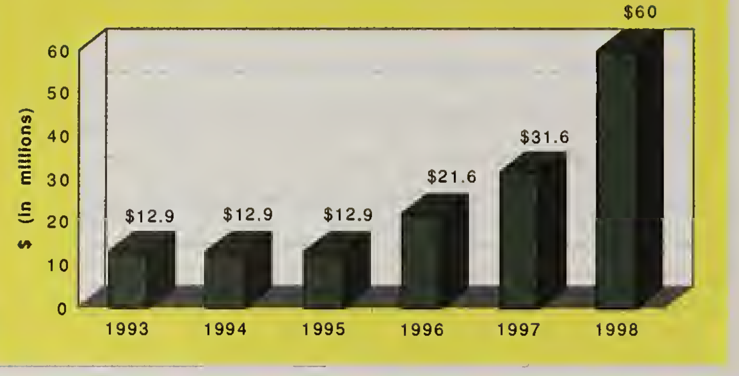
STATE EDUCATION AID FOR THE CITIES

(in millions of dollars)

City	FY93 Ch. 70	FY98 Ch. 70	% Increase
Agawam	5.8	9.2	58.2
Amesbury	4.2	8.0	88.8
Attleboro	10.6	18.2	71.2
Beverly	3.2	5.0	56.3
Boston	59.4	144.2	143.0
Brockton	36.6	75.8	107.3
Cambridge	2.2	4.7	108.8
Chelsea	13.7	28.8	109.4
Chicopee	16.9	27.6	63.1
Easthampton	4.9	6.6	36.3
Everett	2.5	9.6	284.2
Fall River	44.0	68.4	55.3
Fitchburg	14.7	25.4	73.3
Gardner	6.2	10.7	73.2
Gloucester	1.4	3.5	144.4
Haverhill	11.4	27.31	140.0
Holyoke	30.1	50.9	69.0
Lawrence	41.3	79.6	93.0
Leominster	10.0	21.1	111.5
Lowell	35.4	80.2	126.4
Lynn	28.8	66.8	131.8
Malden	11.0	15.4	40.3
Marlborough	1.4	2.9	103.4
Medford	7.6	10.0	32.4
Melrose	3.3	4.3	30.5
Methuen	8.9	16.5	85.8
New Bedford	51.3	75.9	48.1
Newburyport	1.6	2.4	50.2
Newton	3.1	6.2	97.6
North Adams	7.3	11.4	55.2
Northampton	5.1	6.0	18.9
Peabody	6.6	10.1	50.7
Pittsfield	16.4	23.2	41.2
Quincy	7.7	10.3	33.7
Revere	6.8	16.9	147.4
Salem	3.4	8.0	133.7
Somerville	12.3	19.8	61.3
Springfield	100.5	146.3	45.7
Taunton	16.8	26.7	59.1
Waltham	3.0	4.6	53.7
Westfield	11.0	21.4	95.5
Woburn	1.7	3.0	82.2
Worcester	52.0	102.3	97.0

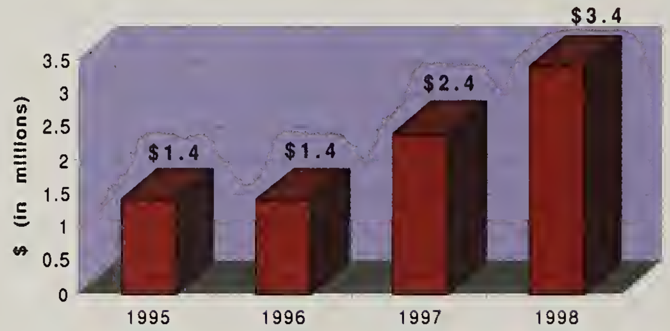
State Educational Statistics

State Funding for Community Partnerships for Children (in Millions of Dollars)



This is a grant program which helps community agencies build networks to combine resources to provide quality programs for children ages 3-4 years old and their families. The number of communities participating in the Partnerships program has grown from 109 in 1993 to 213 in 1997, with more expected in 1998. The number of children served has grown from 7,300 in 1993 to 9,000 in 1996 to 10,500 children in the program in 1997.

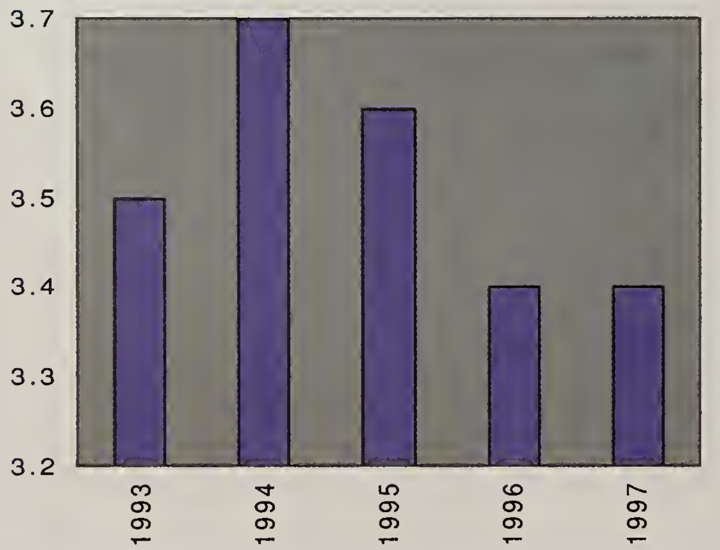
State Funding for Massachusetts Family Network (in Millions of Dollars)



This is a grant program which helps community agencies build networks to combine resources to provide quality outreach and educational services for families with children ages birth through 3 years. Since 1995, the number of communities in the Network has grown from 57 to 80, and more communities are expected to participate in 1998. In 1996, the Massachusetts Family Network served 6,750 families with 7,445 children.

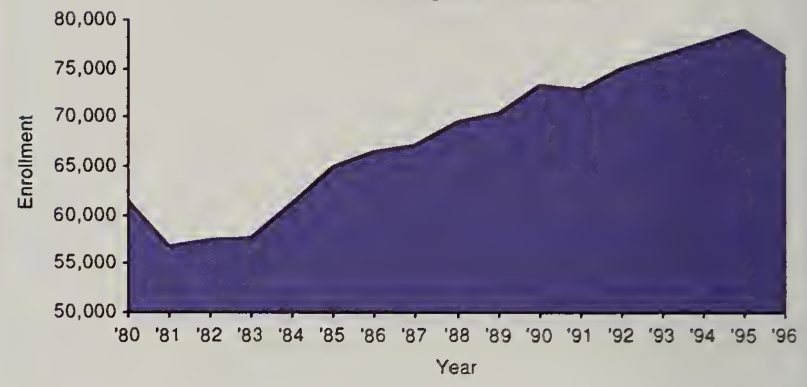
Annual MA Dropout Rates: 1993-1997

(Percent of high school class who drop out of school)



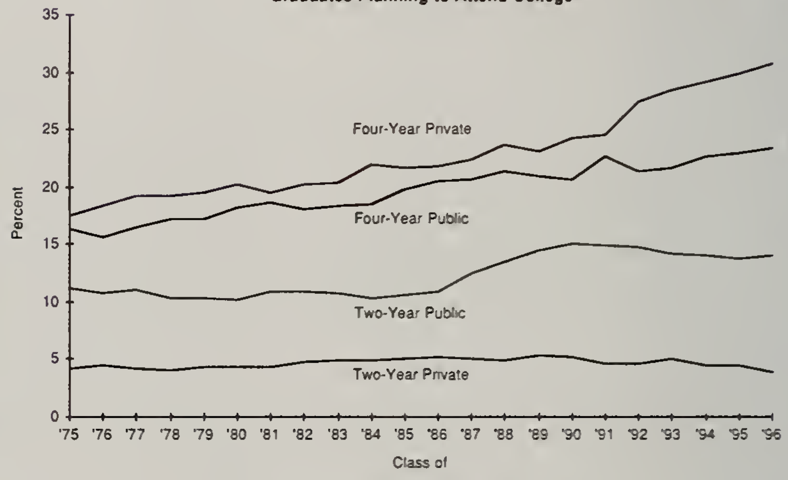
Here come the children!

Public School Kindergarten Enrollment

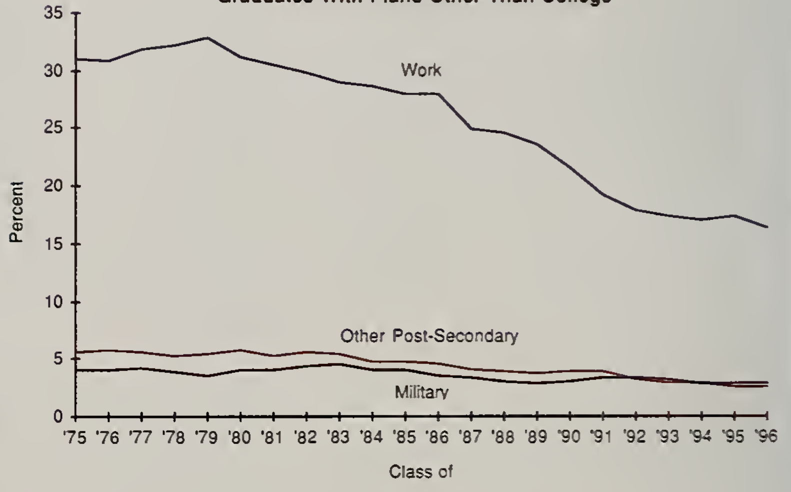


Where are they going?

Graduates Planning to Attend College



Graduates With Plans Other Than College



1997 Scholastic Aptitude Test

	MA	USA
Verbal	508	505
Math	508	511
Participation Rate (%)	80*	42

**National Leader*

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Technology Update

Initial indications are that districts can expect to save between 25%–33% on the direct costs of such procurements, with substantial additional savings due to faster procurement and better quality service.

At the state level, comprehensive technology planning was initiated in 1994 with a study called "Mass Ed On-Line." In 1995–96, a five-agency task force translated the study into a concrete action plan which formed the basis of the local technology planning effort, which included Educational Technology Bond matching grants, Mass Ed On-Line LearnNet, (MEOL-LN) and Department of Education Information Management Systems (DOE IMS). Each season, the Department of Education issues an update to this plan in newsletter and web document form (this document), announcing new initiatives and services.

The ET Advisory Council

More regular briefings and updates are available to all interested parties at the monthly ET Advisory Council. Usually held on the last Wednesday of each month between 4pm and 8pm at a central location, the ET Advisory Council has become the Department's primary sounding board for new policies and initiatives. Participation is welcome and dinner is provided to those who pre-register with Connie Louie <clouie@doe.mass.edu>.

District Technology Planning

District planning efforts are proceeding in a similar direction. Almost all (98%) school districts in Massachusetts have submitted their local technology plans to the Department of Education. Each plan was reviewed by two educators who provided recommendations to the Commissioner, Robert V. Antonucci, for final approval. An approved plan must have a description of school and community stakeholders who are involved with the planning. It must have a survey on technology competency of students and staff, an inventory of equipment and connectivity, a report on technology expenditure, and a projected 5 year technology expenditure account. Last but not least, the plan must have a description of the goals, objectives, activities and technology designs on the use of technology in instruction, administration and professional development in the district. The criteria and the local technology planning kit are posted on the Department's Web site.

98% of school districts in Massachusetts have submitted their local technology plans to the Department of Education.

ET Matching Grants

Pursuant to the terms of the Information Technology Bond Bill (Chapter 294 of the Acts of 1996), school districts with approved technology plans have received the Education Technology Bond Bill Matching Grants ($30 per student). During last school year, 205 school districts received grants in three rounds of grant awards. On August 27, 1997, Governor Cellucci announced the Fourth Round of this grant program.

An additional 134 school districts now receive funds to improve teaching and learning using information technology. School districts that have approved technology plans will be able to start/continue to build their districts' electronic networks.

PROCUREMENT REFORM

As districts ramp up to complete implementation of their technology plans, many are beginning to experience the need to procure extremely expensive consulting services (up to $200 per hour) in order to design, install, and maintain their information management and networking systems. Not only are such services prohibitively expensive, the typical competitive procurement process (Chapter 30B) is so cumbersome and rigid that many districts find it impossible to successfully contract for the high end technology skills they need.

To rectify this situation, the Department is now making available a pool of vendors which districts can directly contract with for Educational Technology Integration Services (ETIS) without conducting a separate competitive procurement process. Not only will this system streamline the procurement process, it will substantially increase the quality and value of such services. Districts will be encouraged, but not required, to procure all of their IT consulting services from the ETIS vendor pool. A summary of each vendor with a description of the type of services that they offer will be mailed to each school district and posted on the DOE web site. Vendors participating in this system will be required to disclose their actual cost of delivering services (salary + benefits + overhead) and the results will be posted on the web site with vendor descriptions. Districts that procure services through the vendor pool will be required to complete a vendor evaluation every six months or at the completion of the contract. Results of the evaluations will also be posted on the web site.

The goal of this system is to provide school districts with the maximum information possible to make informed choices as consumers of IT goods and services. Initial indications are that districts can expect to save between 25%– 33% on the direct costs of such procurements, with substantial additional savings due to faster procurement and better quality service. Future procurement reform efforts will focus on bringing similar saving to IT equipment and other commodity purchasing.

EDTECH CALL CENTER: 888-363-3360

A statewide help desk call center has been established to support districts in making use of the Educational Technology Integration Services vendor pool (ETIS), Information Management System (DOE IMS), Technology Training and Professional Development (TTPD) system, and other ET initiatives. The call center is currently open during regular business hours (Mon.–Fri. 9am–5pm). By January 1, 1998, the call center will be expanded to full capacity with longer hours and a greater knowledge base.

When districts call the toll-free number, they will receive courteous and knowledgeable phone support on all ET initiatives. If the district requires additional support on implementation of the DOE IMS, one of 10 geographically distributed field technologists will be dispatched to make a site visit as soon as possible. If the problem surpasses the ability of the IMS field technologists to resolve, or the size of the need requires outside contracting, the EdTech Call Center staff will assist districts in framing and procuring services through the ETIS vendor pool.

NEW DOE EDTECH CLUSTER

In light of all the new statewide educational technology activities, the Department of Education has increased its Technology Cluster from a staff of two part-time employees to a fully staffed unit of professionals and contractors located in Malden, Pocasset and across the state. Greg Nadeau and Connie Louie have been appointed as Chief Technology Officer and Instructional Technology Coordinator respectively, formalizing the roles which they have been playing for the past three years. A technology training center and software development lab have been established in the basement

EdTech Call Center

888-363-3360

CONTINUES P. 12

Lighthouse Technology Sites Grant Recipients

Acton-Boxborough			District
Amherst	Crocker Farm Elementary School	Crocker Farm School Web Page	School
Amherst-Pelham	Amherst Regional High School	Transformational Geometry	Classroom
Andover	Bancroft Elementary School	AlphaSmart Project	School
Ashburnham-Westminster	JR Briggs/Westminster Elemen. School	Scientific Discovery: An Investigative Journey	Classroom
Ashburnham-Westminster			District
Beverly	Hannah Elementary School	"I am a scientist."	Classroom
Boston	Beethoven Elementary School	www.cyberweavers.kids	Classroom
Boston	Horace Mann School for the Deaf & Hard of Hearing	Teaching & Learning with Assistive Technology	School
Boston	James P. Timilty Middle School	"Connecting Students to the 21st Century"	School
Brookline			District
Cambridge	Kennedy School	KeyPals Project	Classroom
Canton	W. H. Galvin Middle School	On-Line Publications	Classroom
Douglas	Douglas Elementary School	To Infinity and Beyond	Classroom
Duxbury	Duxbury High School	Music Proposal	Classroom
Erving	Erving Elementary School	Town of Erving Business Directory	Classroom
Erving	Erving Elementary School	Supporting the Integration of Technology Across the Curriculum	School
Erving		Using the Internet to Showcase Student Projects	District
Fall River	Durfee High School	School & Community Connections through Technology	School
Fall River	Durfee High School	Electronic Publishing in the Journalism Classroom	Classroom
Falmouth	Falmouth High School	English Computer Integration	Classroom
Falmouth	Mullen Hall School	Technology Volunteer Program	School
Franklin	Davis Thayer Elementary School	Loop to Literacy in Technology	Classroom
Franklin	Horace Mann Middle School	Technology as a Tool in Curriculum Integrations	School
Gloucester			District
Greater New Bedford	Greater New Bedford Reg Voc Tech HS	Student Web Site Development	Classroom
Hamilton-Wenham			District
Hampden-Wilbraham	Soule Road School	Integrating Technologies into the Writing Process	Classroom
Hampden-Wilbraham	Minnechaug Regional High School	Using Microsoft PowerPoint in the Classroom	School
Hampden-Wilbraham			District
Hudson	Hudson High School	Virtual High School	School
Ipswich	Doyon Elementary School	Learning with Technology Team 2000	Classroom
Ipswich		21st Century Classrooms	District
Lexington			District
Medfield	Dale Street School	Integrating Technology Into Classrooms	School
Minuteman	Minuteman Science-Technology HS	Tech Learning Center and Middle School Outreach	Classroom
Mohawk Trail Regional	Heath Elementary School	School-wide Multimedia Projects	School
Mount Greylock Regional	Mount Greylock Regional School	People, Politics, & the Environment: WOLF	Classroom
Needham		Technology Tools for All Teachers	District
New Bedford		Direction thru the Network Maze	District
Newton	Brown Middle School	The ARES Project	Classroom
Newton		"Just-in-Time" Professional Development	District
North Andover		Curriculum Database	District
Quincy	Atlantic MS and Sterling MS	Net.Gain	Classroom
Reading	Parker Middle School	Multimedia, The Internet, and World Languages	School
Revere			District
Rockport	Rockport Elementary School	Word Problems Come Alive	Classroom
Shirley			District
Somerville	East Somerville Community School	Extended Day Telecommunications and Multimedia	School
Southern Berkshire Regional	Mount Everett Regional High School	The 21st Century Classroom	School
Southern Berkshire Regional	Mount Everett Regional High School	Virtual Schoolhouse on the Internet	Classroom
Southern Berkshire Regional			District
Springfield	Margaret C. Ells School	Our Fifty States	Classroom
Sturbridge	Burgess Elementary School	Integration Technology with Instruction	Classroom
Sutton	Sutton Elementary School	Inquisitive Kids & Integrated Technology = Incredible Discoveries	Classroom
Sutton	Sutton Junior/Senior High School	The Littles on Tour	Classroom
Sutton	Sutton High School	Technology, Community, and the Social Studies Classroom	Classroom
Walpole	Old Post Road School	Old Post Road School Homepage Project	Classroom
Wareham	Wareham High School	Visual Design, Fine Arts Department	Classroom
Wareham			District
Watertown			District
Westborough	Westborough High School	Teaching World Languages Via the Internet	Classroom
Westford	Abbot School	Living in Harmony with the Environment	Classroom
Westford	Lloyd G. Blanchard Middle School	Spotlights on Technology Curriculum Integration	School
Williamsburg			District
Worcester	Arthur F. Sullivan Middle School	Making a Difference...Sullivan Middle Lighthouse School	School

Technology Update ...from p. 10

of the Department's Malden offices to support the technology team and provide end-user training opportunities to all Department staff.

EDTECH SABBATICALS

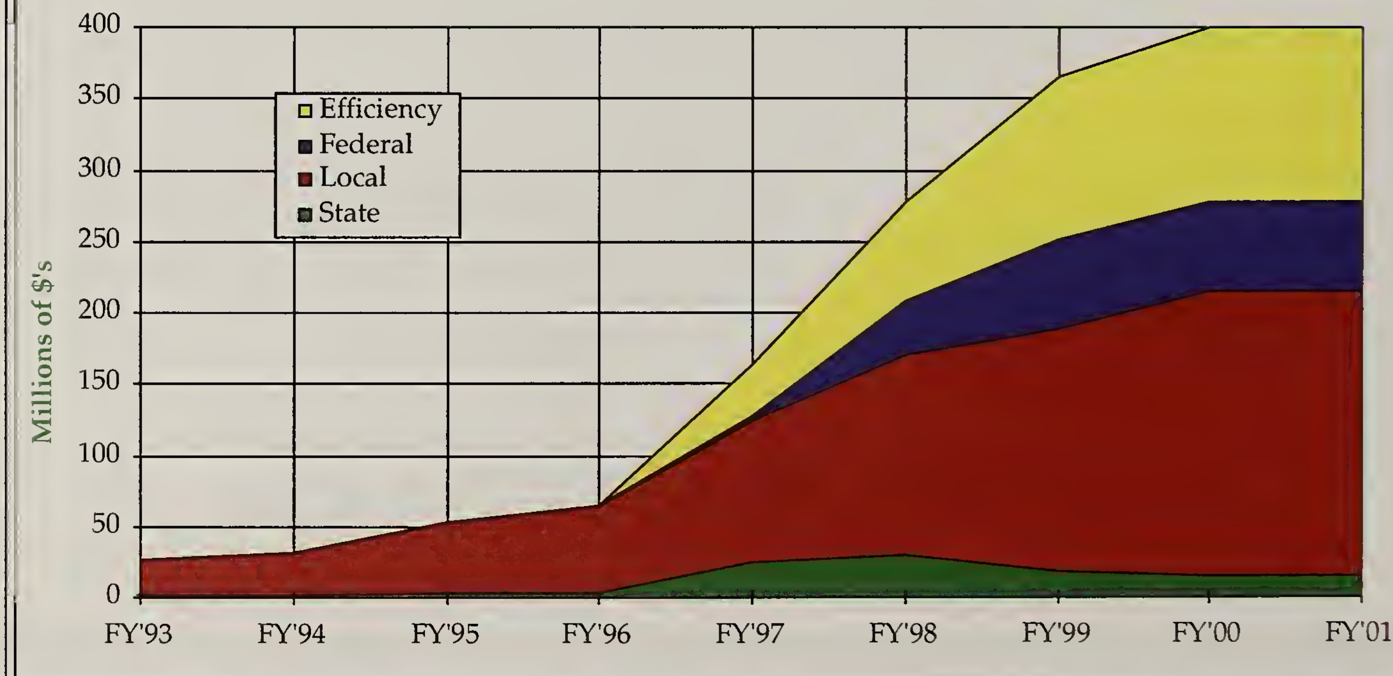
Joining Connie Louie in the Instructional Technology team, are Grace Meo and Linda Schaye, the Commonwealth's first state sabbatical EdTech specialists. Grace Meo has been working as the elementary technology coordinator in the Hamilton-Wenham Regional Schools for the past nine years. She was excited by the possibility of learning about the relationship between the Department of Education initiatives and their effect on student learning. Linda Schaye, the elementary technology integration specialist in the Westford Public Schools, has been involved with educational technology for the past 10 years. As a former classroom teacher she is interested in creating integrated curriculum models which use technology.

Grace and Linda bring a district perspective to the Department's day to day work. Each has been appointed as liaison to one of the federally funded Projects with Statewide Impact and provide critical expertise in helping to coordinate all of the Department's instructional technology initiatives. Applications for next year's EdTech sabbaticals will be made available as part of the Department's Spring Unified Grant package.

$15 PER STUDENT GRANTS

Districts have until June 30, 1999 to expend their funds.

Projected Increases in Massachusetts Educational Technology Expenditures



Powerful Learning Tools

Study after study has shown that effective use of technology in the classroom can have a direct, measurable impact on improving students' core academic performance and their technology-related skills. From process writing labs to mathematics problem solving software to field-based science probes, technology can be a powerful complement to traditional instruction in core academic areas. Other technology-related skills such as multimedia presentations and world wide web navigation can only be taught when students have access to state-of-the-art technology.

Instructional technology requires a paradigm shift in the classroom for it to be effective.

However, for every example of successful instructional technology, there is a counter example of content-empty "edutainment" or computers sitting in unused labs, and other failed endeavors. A recent cover story in the Atlantic Monthly goes so far as to declare educational technology a wasted effort, playing into critics' claims that technology is a distraction, not an essential complement, to core academic instruction.

Instructional technology requires a paradigm shift in the classroom for it to be effective. However, while no one would suggest that the teachers should continue a lecture and rote learning pedagogy, the transformation to interdisciplinary, project-based collaborative curriculum/assessment units is extremely difficult to implement.

The state has been slow to fix a role for itself in this extremely dynamic endeavor. As a starting point and using the federal Technology Literacy Challenge Fund, the state has launched a four year effort to identify successful "lighthouse" technology sites inquiry into successful instructional technology funding with a federal Challenge Grant. The initiatives are described below and lay out a tentative first step in a process that may lead to statewide curriculum evaluations and on-line warehousing, software purchasing cooperatives, and/or true interactive distance learning.

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LIGHTHOUSE TECHNOLOGY SITES

Fifty-three lighthouse technology grants have been awarded to 30 classrooms, 17 schools, and 6 districts statewide. The Lighthouse Technology grants are a component of the federally funded Technology Literacy Challenge Fund and were awarded competitively to districts with proposals that described best practices using technology in education at the classroom, school, and district levels. In the 1997–1998 school year, lighthouse technology grant recipients serve as beacons for other districts seeking technology training to implement new innovative uses of technology. These lighthouse sites will open their doors to site visits, conduct workshops, and provide support and follow up to other schools and districts.

LINKING INQUIRY-BASED PROJECTS WITH THE CURRICULUM FRAMEWORKS

The Metro South School to Career Partnership is a partnership of schools, business, community-based organizations, higher education institutions, and government agencies which are committed to prepare youth for the high skill/high wage jobs of the future. Through the Cyber Works Project, the partnership will (a) create a regional bank of inquiry-based projects relating to the Curriculum Frameworks using new technologies; and (b) create a regional system of professional development, using experts in the schools to assist colleagues in mastering various technological applications while addressing the skills identified in the Frameworks.

ASSISTIVE TECHNOLOGY

Thirty-seven participating school districts in three collaboratives, in conjunction with the Massachusetts Elementary School Principals Association, propose to provide all students, regardless of disabilities, the opportunity to participate in general education, employing state-of-the-art assistive technologies. The activities contained in this proposal will provide a model for school districts throughout the Commonwealth to identify, review, and evaluate existing and emerging technologies, particularly, assistive technologies.

Networking Vocational Schools

Tech Net, the Technical Network, is a consortium of all 60 Massachusetts Vocational Technical Schools plus other agencies, higher education institutions, members of business and industry community. The project will i) establish an electronic network for the exchange of information and resources; ii) institute mentoring relationships; iii) create a virtual teaching lab using distance technology for in-service training; iv) link federal, state and local agencies to achieve the goals of School to Career, Tech Prep, and the SCANS report.

Distribution of Educational Video

An older, but still valuable instructional technology is video. For several years the state has supported the production and distribution of video through two channels:

The Mass LearnPike: MCET's educational satellite network, the Mass LearnPike brings learners of all ages together from widespread locations for live interaction and new relationships with peers, teachers, performers and distinguished leaders in government, education and business.

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Programs for K-12 are designed within the emerging national and state curriculum frameworks to serve the Common Core of Learning, including staff development modules for in-service and pre-service educators. Mass LearnPike resources consist of satellite broadcasts, print and non-print materials and communication opportunities that link educators, learners and other professionals nationally and internationally.

Through integration of videoconferencing and satellite technologies, Mass LearnPike programs have served and had the live participation of students from Canada, Japan, Sweden, France, Israel, Belgium, England, and Spain.

Massachusetts Educational Television (MET) is a partnership between the Department of Education and the two Massachusetts PBS affiliates, WGBH and WGBY. Through MET, WGBY broadcasts 2 hours of educational video every weekday. MET's duplication and re-use rights enable Massachusetts educators to set VCRs to record some of PBS's most valuable resources and use them at their convenience in their classrooms.

Increased Administrative Efficiency and Effectiveness

Never again will districts have to deal with lengthy delays and inefficient paperwork to keep their information current.

For years, the Department of Education has been called upon to collect more and more data from schools. From grants to regulations to studies, each new state or federal program comes with its own set of forms to complete and data to collect. While schools legitimately complain about the amount of time spent filling out paperwork, others are equally dissatisfied with quality and quantity of data available to guide statewide educational decision-making.

In 1995 the Department began developing a state-of-the-art comprehensive information management system. When it is completed in the Spring of 1999, the DOE IMS will replace over 250,000 pieces of paper used each year to collect data from schools with a web-based system of smart forms which will enable districts to directly enter, edit, retrieve, and transfer data with the Department through any common web browser. In addition, the DOE IMS will provide the information infrastructure for the Education Reform Act by tracking individual student data on each of the close to one million public schools students.

THE ON-LINE SCHOOL DIRECTORY

The Department is working on the release of the first prototype application of the DOE IMS. It will be an on-line school directory which will enable school districts and Department personnel to share core information on each school, district, and district administrative staff. When released in November, each superintendent will have the ability to grant access privileges to members of his or her staff to maintain the accuracy of the data themselves. Never again will districts have to deal with lengthy delays and inefficient paperwork to keep their information current. Members of the public will be able to access accurate contact, district profile, and school report card information through the Web.

Later this winter, the Department will be able to communicate directly with any category of district staff automatically through e-mail, fax, and/or merged letters. This will transform the way that the Department and school administrators communicate, ensuring that all local education administrators are able to receive customized information from the Department in the most efficient method possible.

STUDENT IMS

The Department is issuing a legal advisory explaining how the student record requirements will be changed to implement the Education Reform Act of 1993. Every district will be required to establish a common, unique ID and report to the Department in electronic format thirty four data elements on each student. The data will be simple, unique identifiers of the students so that the system can accurately and with 100% assurance track test scores by students. The DOE IMS will provide districts with a "local data filter" which will enable them to consolidate student data from different applications, enter additional data if necessary, and transmit the data to the Department, and maintain confidentiality.

The main goal of the Student IMS is to track individual student performance through the new statewide tests. Districts will be able to continue to use whatever student administrative packages they desire. The student data filter will be designed to provide districts with the maximum useful information. Transmission of student data will replace the fall foundations enrollment report, special education count, and end-of-the-year student reporting requirements.

Every district will be required to establish a common, unique ID and report to the Department in electronic format thirty-four data elements on each student.

DISTRICT ROLL-OUT

While the IMS applications will be designed to make use of the ubiquitous ease of use available through the World Wide Web, districts will clearly need substantial support to make the paradigm shift into this new way of reporting data. The IMS Roll Out team will establish a call center which will provide telephone support and coordinate the dispatch of a statewide organization of field technicians who will be able to provide districts with on site support. In addition to phone and on-site support, the Roll Out team will provide free regional trainings on web browser use, student data consolidation, and use of the student filter for all central office district administrators.

In most information-intensive industries, it has become accepted that organizations must commit between 1% and 2% of their human resource budget to continuous training for their staff to effectively utilize emerging technologies. Yet Massachusetts schools are currently spending only 1/10th that amount. Rectifying this trend and establishing a new statewide standard for technology training and professional development will be the top priority of the Massachusetts State EdTech agenda this school year.

At a minimum, every teacher and administrator in the Commonwealth should participate in technology training and professional development, based on the following principles:

(a) Build capacity and expand services for teachers and administrators who are new in the use of technologies; sustain professional growth for teachers and administrators in using technology in the curriculum.

(b) Provide sustainable momentum and incentives for teachers and administrators to continue seeking instructional technology training and professional development.

(c) Address individual needs of teachers and administrators with different levels of technology proficiency and working in different program/subject areas, to use technology as a tool to enhance teaching and learning.

(d) Integrate and align professional development and training services with Education Reform initiatives.

Mass. TTPD: Technology Training & Professional Development System

Last year, the Department of Education awarded a two year contract to the Massachusetts Corporation for Educational Telecommunication (MCET) to design and develop a statewide system to coordinate technology training and professional development delivery. The resulting system, introduced this school year, will have two components:

TTPD-WIRED is an interactive web site which will provide school districts and individual educators with "one-stop shopping" access to a listing of all technology training and professional development courses and providers in the state. Districts and educators will be able to browse course offerings, compare evaluations, and register on-line. Future expansions of the system will allow for on-line payments as well. A prototype of the system will be available in October at <http://meol.mass.edu/TTPD/>. The full production release will be at the Department's web site <www.doe.mass.edu>.

The **TTPD Partner Network** is a consortium of regionally-based organizations which will provide a human interface to TTPD and facilitate districts' use of the system. The initial list of partners includes EDCO, the Education Cooperative (TEC), Greater Lawrence Educational Collaborative, Hampshire Educational Collaborative, Massachusetts Elementary School Principals Association, Merrimack Education Center, and South Coast Tech Center. This fall, TTPD will be contacting schools to conduct a needs assessments to better connect district needs to provider offerings.

DOE Conferences

The Massachusetts Department of Education invites administrators and teachers for one day regional technology conferences. Participants are updated on new statewide technology initiatives. Representatives from the new Lighthouse Technology Sites will be present to talk about their programs and questions. The spring conferences will be held on March 24, 1998 (Central Mass), March 26 (East), and April 1 (West).

NEED-BASED PROFESSIONAL DEVELOPMENT GRANTS

Through the Technology Literacy Challenge Fund, 98 school districts received grants to provide quality professional development for teachers and administrators. These projects must demonstrate a commitment to high quality technology professional development which include:

(a) innovative technology professional development and training delivery models;
(b) models that address individual needs of teachers and administrators working in different programs/subject areas, different grade levels, and are at different technology competency levels; and
(c) sustained and continued support for teachers and administrators who seek technology professional development in teaching and assessment strategies.

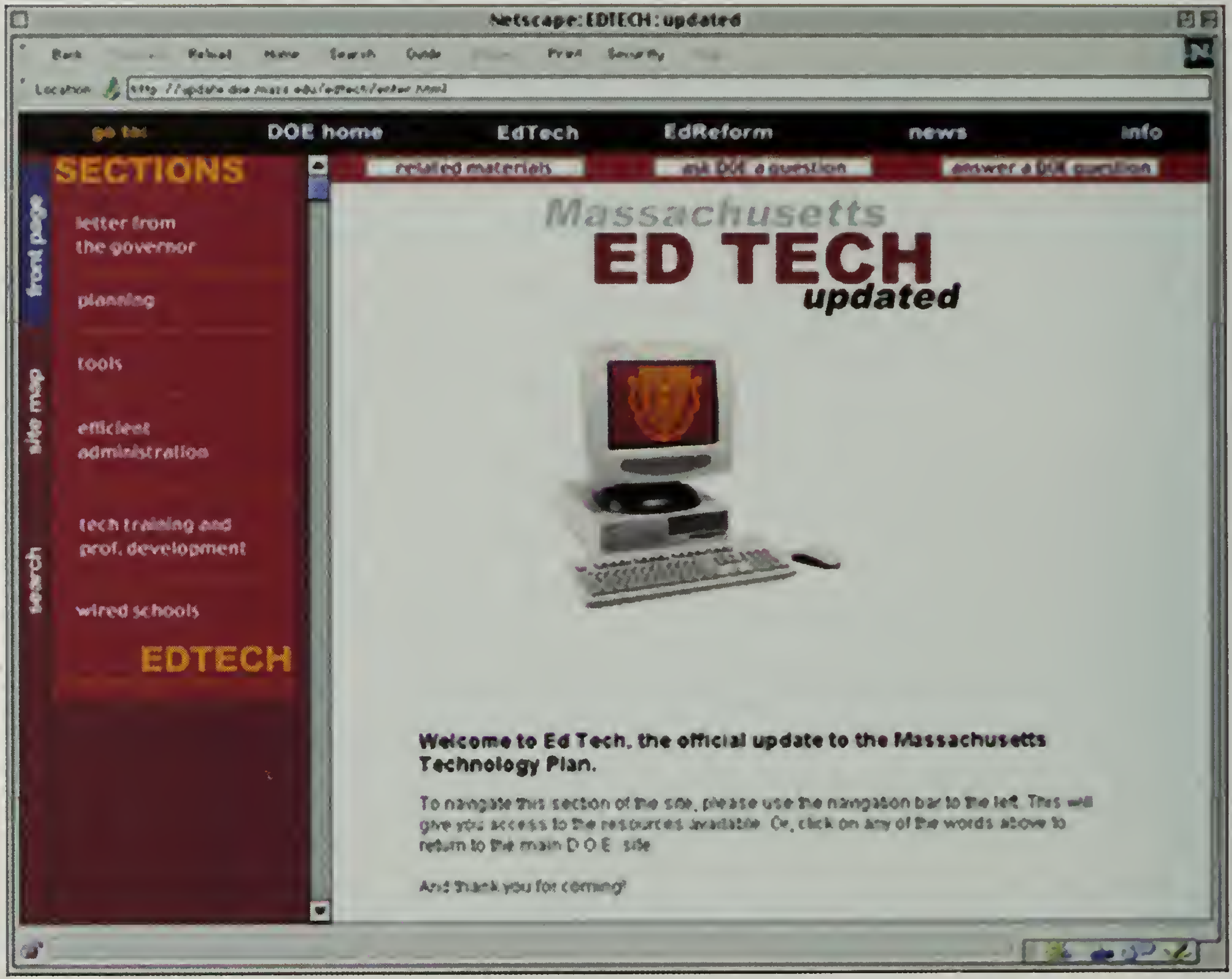
The second round for this competitive grant program will be in the spring. The grant application will be included in the Department's Unified Competitive Grant Packet.

Need-Based Professional Development Grant Recipients

Acushnet, Amesbury, Amherst, Amherst-Pelham, Arlington, Athol Royalston, Attleboro, Ayer, Beverly, Billerica, Blackstone Valley Reg, Boston, Boxborough, Brockton, Cambridge, Cape Cod Region Voc Tech, Carver, Central Berkshire, Chicopee, Clarksburg, Danvers, Dartmouth, Dennis-Yarmouth, Douglas, Dudley-Charlton Reg, East Longmeadow, Erving, Everett, Fall River, Fitchburg, Franklin, Frontier, Gloucester, Grafton, Greater Fall River, Greater Lowell Voc-Tech, Holyoke, Hudson, Leicester, Leominster, Ludlow, Lunenburg, Malden, Mansfield, Martha's Vineyard Public Charter School, Mattapoisett, Medway, Melrose, Millis, Milton, Mount Greylock, Nantucket, Narragansett, New Bedford, New Salem-Wendell, Norfolk County Agr, North Adams, North Andover, North Brookfield, Northampton, Northbridge, Norton, Oxford, Peabody, Pentucket, Pioneer Valley, Pittsfield, Plymouth, Quabbin , Quincy, Randolph, Revere, Salem, Sandwich, Saugus, Shirley, Shutesbury, Silver Lake, Somerville, Southbridge, Southern Berkshire, Springfield, Stoneham, Sutton, Tantasqua, Tyngsborough, Union 61, Upper Cape Cod Voc-Tech, Walpole, Waltham, Wareham, Watertown, Westborough, Western MA Hilltown CS, Westport, Williamstown, Worcester, Worcester Trade Complex.

The Massachusetts Department of Education is online at www.doe.mass.edu

Shown here is our Education Technology home page.



Welcome to Ed Tech, the official update to the Massachusetts Technology Plan.

To navigate this section of the site, please use the navigation bar to the left. This will give you access to the resources available. Or, click on any of the words above to return to the main D.O.E. site.

And thank you for coming!

Wired Schools

In less than five years, the Internet has changed from a small scale academic and military network into a global multimedia system that is reshaping industries. While still in its infancy, educational telecommunications holds the promise of unprecedented positive changes for schools as well. The Internet has transformed personal computers into communication devices, linking each PC user to the world. When all of the world's information is available at a key stroke, simple factual knowledge will be easily accessed, but the skill in using and analyzing it will gain in educational importance.

If teachers are to prepare children for the world in which they will soon work, they must teach them the navigation, analysis, synthesis, and presentation skills of the information age. From this perspective, high speed Internet access to every classroom is a necessary component of effective instruction.

NETDAY

Over thirty states conducted NetDay efforts, but the Massachusetts campaign, led by Mass Networks Education Partnership, has been widely recognized as a national model for its inclusiveness, strategic vision, and results. As a result of three NetDays, more than 19,000 community members have donated their time and expertise to local schools in every part of this state. Over 600 businesses contributed an estimated total of $25 million worth of products and services. Over 900 schools, representing half the state's school districts, have participated. NetDay partner schools have found that they've saved 25% to 85% of the cost of network installation, cut months or even years off their Ed. Tech. implementation plan, and gained the involvement of dozens of local businesses and community members — many of whom are without children in the schools!

NetDay partner schools have found that they've saved 25% to 85% of the cost of network installation.

UNIVERSAL SERVICE FUND

The FCC is beginning to offer schools sharp discounts in all future network and telecommunications costs. The Universal Service Fund, or "e-rate," was established by Congress as part of the Telecommunications Act of 1996. It creates a $2.25 billion annual pool of funds to discount all school and library telecommunications, Internet access, and local area networking costs. The level of discount will range between 20%-90% depending on the percentage of students eligible for free and reduced lunch. Although funds will be disbursed on a first come, first served basis, Massachusetts' proportional share of the fund should average over $50 million a year.

If teachers are to prepare children for the world in which they will soon work, they must teach them the navigation, analysis, synthesis, and presentation skills of the information age.

In order for a district to apply for e-rate discounts, it must have an approved local technology plan. Since over 98% of Massachusetts schools have already submitted plans to the Department to receive ET Bond Matching Grants, the Commonwealth stands in an excellent position to capitalize on the discounts. As currently conceived, application for discounts will involve a national web- and paper- based procurement system that is yet to be developed. However, once the considerable complexities involved with this system are resolved, the impact of these discounts will be tremendous. Some have compared the significance of the e-rate to that of the

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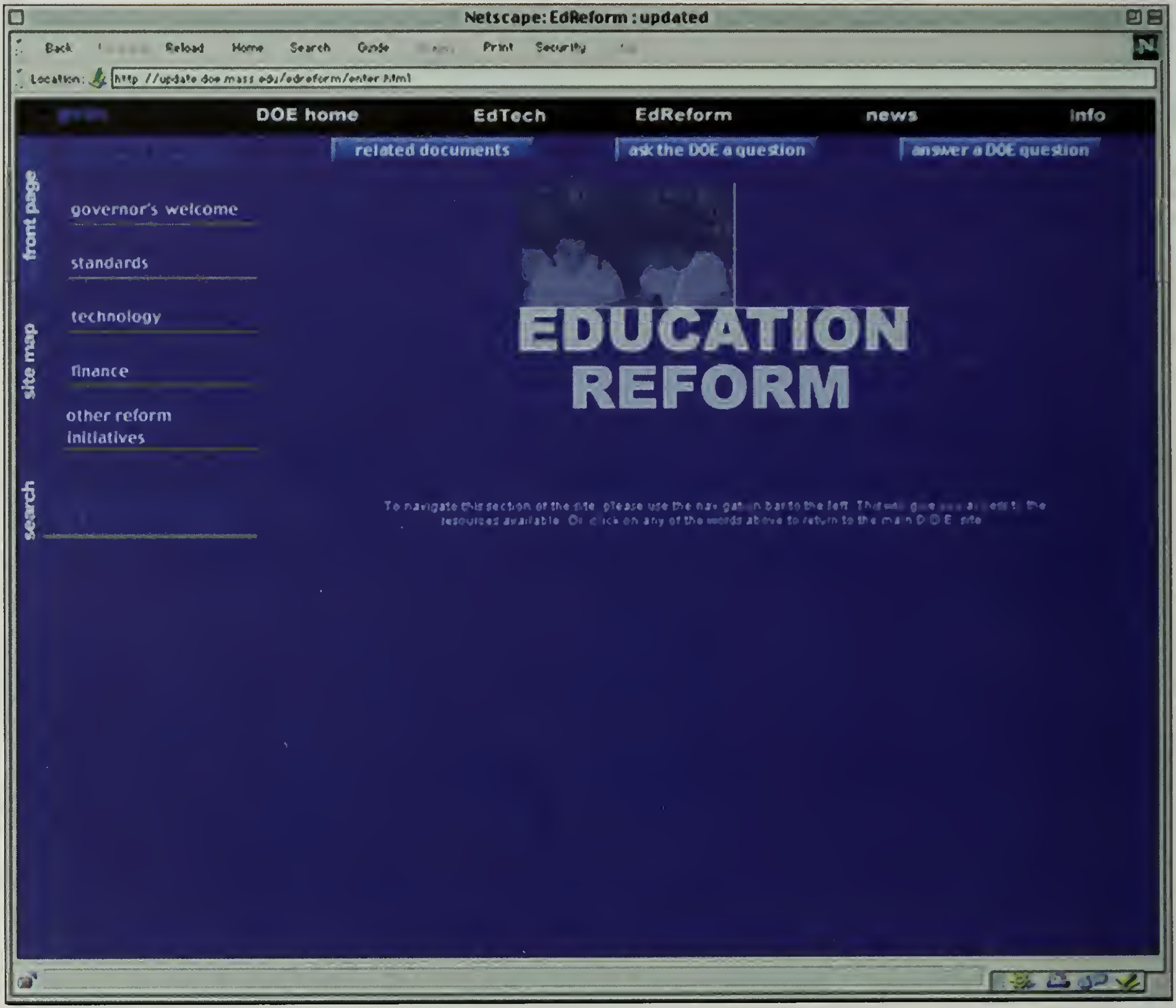
The Massachusetts Department of Education is online at www.doe.mass.edu

Shown here is our Education Reform Home Page



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land grants which established our nations public higher education system.

The Department of Education (DOE) and the Information Technology Division (ITD) are cooperating on the development of a universal access plan to aggregate demand for educational telecommunications services and optimize the Commonwealth's share of the Universal Service Funds.

EDUCATOR INTERNET ACCOUNTS

I am extremely pleased to announce the launch of MassEd.Net, the on-line service for Massachusetts educators. This new network will provide every educator in the Commonwealth with (1) an e-mail account, (2) unlimited toll-free access to the Internet, and (3) round-the-clock technical support.

By the end of 1998, it will become the assumption rather then the exception that every teacher or administrator is regularly checking e-mail.

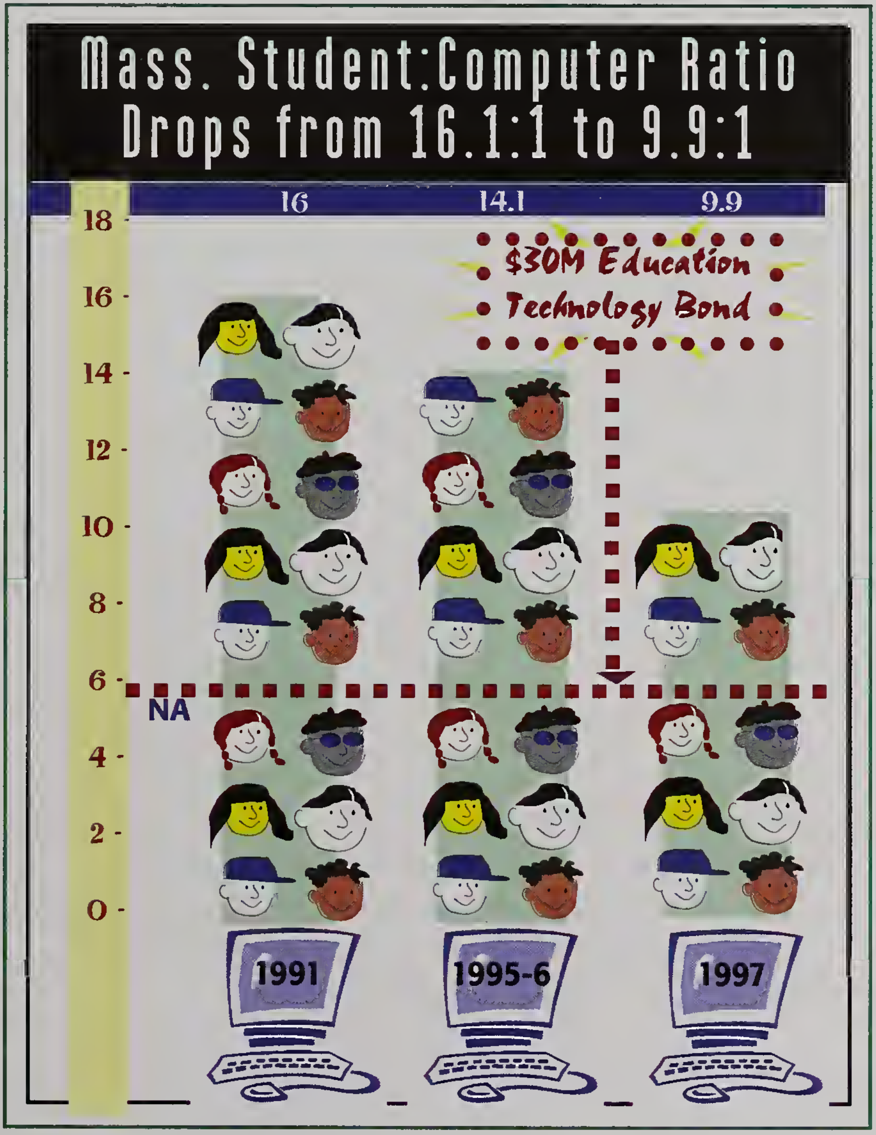
A combination of aggressive procurement and state subsidies allow us to offer the service for free through September, 1998, and at cost of no more then $25 per year thereafter. Since the market rate for these services averages $240 per year, we are encouraging every Massachusetts educator to register for an account.

Through MassEd.Net, educators will be able to send and receive e-mail and access the World Wide Web from any home or school computer in the Commonwealth that has a modem that meets the minimum specifications. This mode of communications is especially effective for teachers who cannot easily get to a phone during the day. We believe that this new service will create a sufficient threshold of on-line activity among Massachusetts educators to fundamentally alter the way that we communicate with each other. By the end of 1998, it will become the assumption rather then the exception that every teacher or administrator is regularly checking e-mail. This will allow school districts, the Department of Education, and others to begin to devote additional resources into strengthening on-line materials -- which will, in turn, stimulate the level of educator activity on-line.

DEDICATED ACCESS

The state is analyzing opportunities for aggregating demands and maximizing universal service fund discounts to provide high-speed, low cost, dedicated Internet access to school districts.

Additional information will be released as details surrounding universal service funds are resolved.


Mass. Student:Computer Ratio Drops from 16.1:1 to 9.9:1

A Sample of Districts' Educational Improvements during the Education Reform Years 1993-1998

Following are excerpts from much longer reports, prepared by several Massachusetts school superintedents, on the positive impact of state funding for public education as a result of Education Reform.

SELECTED URBAN DISTRICTS

Boston

Boston is introducing new curricula in mathematics as part of a five-year phase-in of rigorous Citywide Learning Standards, aligned with state frameworks. New math materials, including calculators, are available to every student. Three new Early Education Centers providing all-day surround care for students age 3 to grade 1, will open in September 1998 in state-of-the art facilities; and the Boston Arts Academy pilot school, the state's first public high school for the arts, will open in a refurbished building. From 1998-2000, Hyde Park and East Boston High Schools will be completely rebuilt with modern library media centers. More than half the district's 127 schools are now hard-wired for Internet access, with all schools scheduled to be connected by October 1998. By September 1998, all kindergarten programs for 5-year-olds will be full-day. Scores on the Stanford 9 Achievement Tests, introduced in spring 1996, showed the beginnings of improvement in 1997, especially in middle school. All middle schools now offer preparation for the entrance exam for the city's three examination secondary schools.

From 1998-2000, Hyde Park and East Boston High Schools will be completely rebuilt with modern library media centers. More than half the district's 127 schools are now hard-wired for Internet access, with all schools scheduled to be connected by October 1998.

Fall River

The district added 128 new positions including attendance officers and teachers for inclusion classes, alternative education, and technology-related careers. It tripled the textbook budget from $221,000 to $775,000 and purchased new math books and manipulatives for all grades. The district has successfully initiated block scheduling at the high school to add time for core subjects, provided 26 schools with the Reading Recovery program, instituted the Early Literacy Learning Initiative with Lesley College, established a Science Materials Center that annually provides 295 elementary teachers with a full program of kits and field study programs, designed middle school science curriculum units to implement the state frameworks, began a forest ecology program, opened a student assessment center in the high school, expanded career education in technical fields, added a professional library to the district's center for professional development, greatly increased the number of participant hours in staff development and added a full professional development day to the teacher's contract, significantly improved its state test results, and lengthened the school day by 34 minutes.

Also, the district addressed infrastructure needs with the purchase of new furniture for two grade levels systemwide, the completion of major building repair projects, and initiation of projects to expand one elementary school and build additional new schools. The district purchased computers for elementary and middle schools, provided the high schools with an industry-standard CAD math lab, two business labs, a technology lab, and two graphics arts rooms that coordinate with world languages on multicultural programs, instituted project-based learning through use of the Internet, and initiated a foundation course in computer concepts to lead to many technical career pathways.

Holyoke

Holyoke has purchased new curriculum materials at all grade levels, updated supplies and materials for all secondary science and language labs, updated computers system-wide, provided after-school literacy, tutoring and homework programs for middle and high school students, provided a cost-free option for teacher recertification, designed a parent training program, and initiated a Scholastic Aptitude Test (SAT) preparation program. Average student performance on the California Achievement Test (CAT) increased between 1994 and 1996.

Lowell

Lowell provides a developmental curriculum for students in grades Pre-K through 2, provides all kindergartners with full-day programs, is implementing the Terra Nova Test in grades 3 through 9 as a benchmark of student achievement for the school district, provides a summer reading program in the schools, provides in-class tutors for students with limited English proficiency, has strengthened school security measures, started peer counseling and mediation programs for students in middle and high school, expanded parent programs with workshops on reading and writing, offers extended learning time programs including after-school homework, integrates educational technology connecting every classroom in each school, provides Internet access for students on 3,500 system-wide computers, and provides on going computer training to every educator in the system.

Pittsfield

An extensive school additions project that will eventually encompass five elementary and two middle schools has been initiated. Magnet programs in the areas of allied health, fine and performing arts, technology, and school-to-work have been implemented at the high school. Staff performance standards and a revised teacher evaluation document have been developed. A combination early childhood education/day care program has been funded for Crosby Elementary School. A day treatment program has been established for youth with severe special needs who may otherwise need costly residential placement. Additionally, to ensure that seniors continue learning and working through their final year of high school, Pittsfield will increase its graduation requirements from 216 to 260 credits, beginning with the class of 2001 for all students.

Springfield

Springfield has implemented K-12 learning outcomes for every grade and academic area to support the curriculum frameworks. A comprehensive Education Reform program designed to prepare students for the 21st Century has led to implementation of several initiatives: full-day kindergartens in all schools, world language programs in K-12, computer technology in all schools, early intervention programs in reading and mathematics, development of assessments for system-wide evaluation, new construction of modern school facilities at every level, new alternative high school programs, reorganization of special education programs, expanded support programs, expanded after school and summer-school programs, and increased professional development for all staff. Springfield is preparing students and staff to achieve at high standards in a complex technological world.

Taunton

Since 1993, Taunton has met the demands of increasing student enrollment (200 new students each year) by adding more than 110 professional teachers and/or teaching assistants. Class sizes have been reduced at all levels, and the district has aligned its curriculum guide with the curriculum frameworks. Technology labs at the elementary, middle and high school have been added and improved, and the development of a system-wide network is well underway. Technology updates have also benefited the library program which offers extended hours during the school year and the summer to encourage year-round reading and research. Professional development opportunities have been greatly expanded, funding for each school's Improvement Council has increased, and a long-range plan for maintenance and renovations of each school is in place.

Worcester

More than 700 educators and community members assisted in designing local curricula aligned with the curriculum frameworks, the teacher work-year increased, MEAP (Massachusetts Educational Assessment Program) test results indicate significant growth in student achievement, the school day was lengthened, average class size decreased from 23 to 21 students, 108 additional kindergarten teacher aides have been hired, 469 teachers and 70 literacy tutors in total were hired, educational spending for every pupil in every school increased from $23 to $110, new textbooks for all students have been purchased, all secondary science labs were refurbished, the district education technology plan has been approved and 2,000 new computers have been installed, and 700 staff have been trained in using technology to support students in achieving the new curriculum standards.

SAMPLE SUBURBAN/RURAL DISTRICTS

Amesbury

Elementary music, art and physical education classes which were eliminated as a result of Proposition 2 1/2 were restored, average class sizes were reduced from 27 to 22, $180,000 is now allocated annually for educational technology, contracts now include a teacher evaluation program aligned with the state's Principles of Effective Teaching and Supervision, assistant principals responsible for directly supervising classroom instruction are now in place in the elementary schools and collective bargaining has resulted in more time in school for teaching all students. Block scheduling has been implemented at the high school. Full day kindergarten is scheduled to begin for the 1998-99 school year.

Dracut

Dracut has been able to replace many of the 88 staff positions eliminated in the 5 years prior to 1993, replaced outdated textbooks in all the schools, expanded its foreign languages program at the junior and senior high, instituted

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a professional development program focusing on reading/language arts, has received approval for its district educational technology plan, eliminated the general track at the high school, and lengthened its school day. In addition, programs in health, physical education, special education, and guidance services have been expanded for grades 7-12. Three developmental reading teachers have been hired for grades 1, 2 and 3.

Orange

As a result of Education Reform, Orange now offers full-time kindergarten, has been able to increase the number of educational staff and decrease class sizes, now fully includes all students with special needs, has a district-wide certified school librarian and a school library with a full-time aide in every school, an approved technology plan, a full-time technology teacher, a technology aide, a computer lab in each school, an expanded school day and year (by the addition of before- and after- school and summertime tutoring programs and mini courses), and strengthened professional development including summer curriculum development projects. Orange has also recently implemented a pilot full-day, full-year pre-school class, and all classroom computers and computer labs have been networked for internet access.

Wachusett Regional School District

The Education Reform Act of 1993 provided the support needed by the five towns of Holden, Paxton, Princeton, rutland and Sterling to regionalize their K-12 schools into one unified district -- Wachusett Regional School District. Prior to 1993, many of the region's schools were in disrepair, but now several projects are underway to modernize, expand and build schools. Every classroom in each school has been connected into a district-wide computer network system. Previously eliminated programs have been reinstated. Teaching positions in the arts, foreign languages, gifted/talented education, health and physical education, and counseling have been added. The district is able to offer more than 130 professional development courses this school year.

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